it decomposes rapidly. This may, in a measure, explain the lack of uniformity in the results obtained by its use.

The diet should be liquid, whether the affection is acute or chronic. I have used milk almost entirely, and, as a change, occasionally egg-albumin.

The remarkable toxic effect of the toluidin blue on the amœbæ would suggest the employment of rectal injections of this substance in the treatment of the disease; but in the absence of any knowledge as to its action on the human being, I have not made the attempt.

My friend, Dr. E. A. Corson, of Savannah, Ga., some years ago suggested to me that in suitable cases the establishment of an artificial anus at the ileo-cæcal valve, and the subsequent washing out of the colon with hydrogen dioxide, might be employed with advantage.

In finally dismissing the subject I cannot forbear stating my conviction that imperfect hygienic conditions are indirectly responsible for the prevalence of amœbic dysentery, and that with even an ordinary attention to sanitary laws the disease would in a short time cease to exist.

I wish, in conclusion, to express my thanks to my friends, Mr. J. C. Haskell, Jr., for the drawings of the fixed amœbæ, and to Dr. I. B. Diamond for much valuable assistance.

TWO CASES OF CONGENITAL SYPHILITIC CIRRHOSIS OF THE LIVER IN INFANTS.

By J. Michell Clarke, A.M., M.D. (Cantab.), F.R.C.P. (Lond.),
PHYSICIAN TO THE GENERAL HOSPITAL AND PROFESSOR OF PATHOLOGY, UNIVERSITY COLLEGE, BRISTOL, ENGLAND.

The following two cases, which came under my care within a short interval of each other, afford excellent examples of the changes in the liver in hereditary syphilis, in the one case more advanced than in the other, and leading to great destruction of the parenchyma of the organ:

The first patient was an infant of ten weeks; she was brought to the Bristol General Hospital with a history that she had appeared to be in pain in the stomach, that the belly had always been rather large, but that no distinct swelling had been observed until ten days previously, when a swelling in the upper part of the abdomen had appeared and had gradually increased.

During the same time the child had vomited all the milk she had taken. There had been no jaundice at any time, and no hemorrhage from the stomach or bowels; the child was fed at the breast; the bowels had been moved regularly, and the motions were normal. The urine was of normal appearance.

Both father and mother were healthy, according to the mother's statement, and had one other child, also healthy. The patient had suffered from snuffles, but had had no eruption on the skin. The mother has since the patient's death given birth to an infant presenting the typical signs of hereditary syphilis. On examination the infant was very small, much emaciated, and appeared extremely weak and ill. The pulse was rapid, almost imperceptible, the fontanelle depressed. She was very anæmic, but not jaundiced. The temperature and respiration were normal, and the tongue clean. The abdomen in the epigastric and hypochondriac regions was the seat of a large swelling. Over this there was dulness and a large, hard, and resistant tumor was felt which moved freely with respiration, and appeared to be the liver; the lower edge of the tumor was sharp and smooth, and came about two inches below the umbilicus. The infant died on the following day.

At the post-mortem the body was extremely emaciated, there being no subcutaneous fat. The bases of the lung were congested, but otherwise the heart and lungs were normal. The abdominal cavity contained about three-quarters of a pint of serous fluid. The liver was very large and filled nearly the whole abdomen, extending from two to three inches below the umbilicus. It was finely granular on the surface, and of a pale yellow color.

On section it was smooth, pale yellow in color, but not bile-stained; of about the normal consistence and of a homogeneous appearance, the outlines of the lobules being indistinguishable. Scattered over the surface of the section were small, pale, rounded areas (miliary gummata).

The gall-bladder was empty and of healthy appearance; there was no obstruction of the bile-ducts.

The spleen was large, dark, and firm, and would weigh about three ounces.

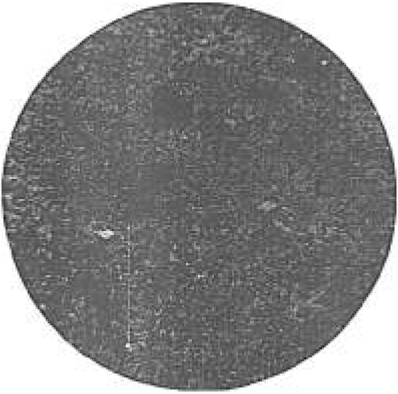
The kidneys were pale; the capsules stripped well, leaving a smooth surface; on section, both cortex and medulla were very pale, but otherwise appeared healthy.

The intestines and stomach were contracted and empty, but otherwise normal.

Owing to the post-mortem being made at the patient's house, the weights of the organs were not obtained.

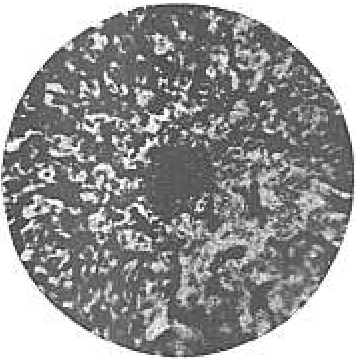
Microscopically, the small, pale areas in the liver are seen to consist of small collections of round cells (miliary gummata), seated, as a rule, in the periphery of the lobules. In some places the connective tissue in the sheath of the portal canals is much increased, so as to form a small mass of fibrous tissue. There is slight general increase of connective tissue in the portal canals around the vessels, and in many instances the newly-formed tissue is abundant around the central vein of the lobule. Both the vessels in the portal canals, the bile-ducts, and the branches of the hepatic veins appear healthy. With regard to the lobules the liver-cells show more or less imperfectly the arrangement into columns, but are flattened from the pressure of a new growth of richly nucleated, faintly fibrillated connective tissue along the walls of the capillary vessels, and often form Y-shaped figures, staining deeply; they are sharply demarcated from the surrounding newly-formed connective tissue, and their nuclei are oval or rounded and in great abundance. This growth pervades the lobules of all parts of the liver, but varies in amount in different parts. Where it is most abundant the liver-cells have almost disappeared, leaving conspicuous large round or oval nuclei, the product of cell proliferation, which is everywhere active, or the cells are small, angular in shape, and atrophic. The protoplasm of the cells is finely granular, and more or less disintegrated, the outlines of

FIG. 1.



Under a low power. To show the miliary gummata, general appearance of sections and newly formed tissue within the lobules and in the portal canals, this figure should be viewed through a magnifying glass.

FIG. 2.



The same under a high power. There is a small gumma in the centre of the field, and the abundant formation of richly nucleated connective tissue between the hepatic cells, which are more or less atrophied, is shown. The sections were stained with carmine and methyl-aniline violet.

individual cells being unrecognizable. I could not trace the formation of connective tissue from liver-cells. (See Figs. 1 and 2.)

The process is thus one of an active new formation of a richly nucleated connective tissue along the intralobular capillaries, due to proliferation of the connective-tissue cells between the capillaries and the liver-cells and of the capillary endothelium, with consequent degeneration and atrophy of the proper cells of the organ.

The other patient was a male infant of one month. He had been extremely delicate from birth, and was taken ill one day before admission, with vomiting and cough. He had not had snuffles nor any skin eruption.

Soon after her marriage the mother had a sore-throat and a measly rash over the trunk and limbs, and since then had suffered much from headache and aching pains in the limbs. The child was very ill on admission, with a temperature of 101° F., rapid respiration, depressed fontanelle, and anæmic appearance. There was no jaundice.

At the base of the left lung there were dulness and bronchial breathing, and moist râles were audible all over the chest. The upper region of the abdomen was prominent, and the liver was felt to be enlarged. He died the day after admission. At the post-mortem the body was much emaciated and weighed eight pounds twelve ounces.

There were no scars or eruption on the skin.

The lungs showed scattered patches of broncho-pneumonia, with general bronchitis. The heart was healthy; it weighed two ounces. The abdomen was large; there was no ascites, and the peritoneum was normal. The stomach and intestines were pale, but healthy. The liver weighed seventeen and a half ounces. It was smooth and pale yellow in color, and its edge sharp. On section it was smooth, pale yellow, but in parts a yellowish white; it was very tough, not breaking down under the finger. In the central parts were small tracts in which the proper substance of the liver was replaced by smooth fibrous tissue in small bands and masses. Around these areas of fibrous tissue the lobules were recognizable, and the substance of the liver was softer and yellowish in color. The gall-bladder was empty, the bile-ducts normal.

The spleen, weighing two ounces, was smooth, somewhat soft, dark red on section, mottled over with small areas of extravasation. The suprarenal capsules were healthy.

The kidneys were pale; on section the boundary zone was injected, and the cortex and pyramids were pale—otherwise they were normal. The brain was normal, but very pale.

On microscopical examination the proper structure of the liver was much altered, but not uniformly so, by a diffused change, consisting of a formation along the capillary vessels of a lowly organized, nucleated connective tissue, spreading through the lobules from periphery to centre, with nuclear proliferation of the cells along the capillary walls, but without marked round-celled infiltration. The liver-cells were throughout the organ greatly degenerated, and atrophied from pressure. Their nuclei were proliferating, and the cell substance was filled with fine granules; in a few places they had undergone fatty degeneration, but this was not a marked or general change. These appearances were less marked in some parts than in others; in some the liver being hardly recognizable, in others being present but highly granular. The arteries showed endarteritis obliterans, and the epithelial cells in the bile-ducts were also proliferated. The veins were normal.

Along the portal canals and between the lobules, also in some parts of the liver around the central vein of the lobule, there was an increased amount of connective tissue, staining badly and of a pale, translucent, homogeneous appearance. This was apparently newly and imperfectly formed connective tissue. In a few places there were very small collections of round cells (interlobular), but these were few and inconspicuous.

In the kidneys the cortical epithelium was granular, and the small and medium-sized arteries showed endarteritis obliterans. This did not affect the arterioles or the afferent vessels of the Malpighian capsules.

This case, then, showed the same changes as the first, but in a more advanced stage, with much more extensive destruction of the liver-cells; differences were found in the absence of miliary gummata, unless the few small collections of round cells mentioned above may be taken as remnants of them, and in the presence of endarteritis obliterans. This latter process might be answerable in part for the greater destruction of the hepatic cells, although the chief factor must be held, as in the first case, to be the pressure exercised upon them by the newly-formed tissue along the intralobular capillaries.

Thus the process is one of a subacute interstitial hepatitis resulting in the progressive destruction of the proper cells of the organ. If the term cirrhosis be applied to the condition it should be described as an intercellular or intralobular cirrhosis. It differs from the acute form of biliary cirrhosis occasionally met with in infants,[1] in that the process in the latter is a much more acute one, starts from the small bile-ducts, and is attended with jaundice. Clinically, the points in the above cases were the history of syphilis, the absence of jaundice, the large size of the liver, the extreme degree of emaciation, and the vomiting of all food. In the second case death was due to the pulmonary complication, but in the first there was no complication, and the early age at which death occurred and the acute character of the symptoms of the terminating illness are noteworthy.

For the photographs I am indebted to the kindness of Mr. James Taylor.

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[1] See a paper by Gibbons, of Calcutta: "Scientific Memoirs by Medical Officers of the Army of India:" 1891, vi., and by author, Brit. Med. Journ., June 30, 1894.